REMARKS

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 1, 6-11, and 18 are pending in this application. Claims 1 is independent. The remaining claims depend, directly or indirectly, from claim 1.

Objections

The text of the cancelled claims has been removed.

Rejection(s) under 35 U.S.C § 103

The present invention includes a novel apparatus, an embodiment of which includes polymeric electrochemical cell components reinforced by an integrated, high-strength band comprising aromatic polyamide fibers. As previously stated, the band is preferably not electrically conductive, to prevent short-circuiting the cell. It should be clarified that the excerpt cited by the examiner, "the bipolar plate will not short the electrochemical cell stack when the band is also electrically conductive," is referring to an alternative wherein the bipolar plate is deliberately provided with a radially-inward perimeter edge (i.e. has a reduced diameter). The use of an electrically conductive band would require reducing the diameter of electrically conductive cell components so that they do not make electrical contact with the band. Conversely, where an electrically non-conductive band is used, no such considerations are necessary and the diameters of the electrically conductive cell components do not have to be so limited. With regard to the embodiment illustrated in FIG. 3, for example, if the gas barrier plate is electrically conductive, which is the typical case, then the band should be electrically non-conductive.

Accordingly, the claims have been amended in this reply to clarify the present invention. In particular, currently amended claim 1 includes the recitation of a *non-conductive* polymer

composite band comprising polyamide reinforcing fibers. New independent claim 21 includes the recitation of a *non-conductive* polymer composite band integrated with and encircling a perimeter edge of a bipolar stack of electrochemical cells, wherein the polymer composite band comprises *polyamide* reinforcing fibers mixed with a polymer binder. Claim 11 has been cancelled.

The examiner relies on Milgate (U.S. Pat. No. 6,852,441) in view of Yeager (U.S. Pub. No. 2002/0177027) to reject claims 1, 6-11, and 18 under 35 U.S.C. 103(a). In particular, the examiner contends that it would have been obvious to combine the reinforcing fibers of Yeager in the reinforcing bands of Milgate. However, Yeager discloses a *conductive* thermoset composition for use in electrochemical cells. Yeager teaches a composition whose properties include "high conductivity," and warns that "at least one of these properties is compromised if *any* of the components is omitted." By contrast, amended claim 1 and new claim 21 each include the recitation of a non-conductive polymer composite band. One skilled in the art would not look to Yeager in constructing a non-conductive reinforcing band. Therefore, Milgate and Yeager neither teach nor suggest all of the limitations recited in independent claims 1 and 21. For at least this reason, claims 1 and 21 as currently amended are patentable over Milgate and Yeager. Claims 6-10 and 18 are allowable for at least the reason that they depend from a now-allowable base claim. Accordingly, please withdraw the rejection under 103(a).

Applicant believes this Reply is fully responsive to all outstanding issues. In the event there are additional charges in connection with the filing of this Response, the Commissioner is hereby authorized to charge the Deposit Account No. 50-0714/LYNN-0169 of the firm of the below-signed attorney in the amount of any necessary fee.

Respectfully submitted,

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